

Kansas West Nile Virus (WNV) Weekly Surveillance and Transmission Risk Report

Week Ending August 4, 2017 (Week 11)

Highlights this week:

- The West Nile virus risk level increased from moderate to high for the east region and low to high for the west and central regions this week.
- West Nile virus (WNV) positive mosquitoes were identified in Sedgwick, Reno, and Shawnee this week.
- No additional human cases of WNV were identified this week.
- Three WNV human case investigation is in progress.
- No veterinary cases of WNV were identified this week.

West Nile virus Transmission Risk Level by Region*



Legend

RISK LEVEL

- Low
- Moderate
- High

Key to West Nile Virus Risk Levels in Kansas - 2017		
Risk	What it Means	What You Can Do
Minimal	The mosquito species that carries WNV has not been detected. This does <i>not</i> mean the risk is zero.	To Prepare: <u>Mosquito-Proof Your Home:</u> <ul style="list-style-type: none"> Keep screens on windows and doors in good repair. Use air conditioning if you have it. Drain - Reduce number of mosquitoes around your home by emptying standing water from flowerpots, gutters, buckets, pool covers, pet water dishes, discarded tires, and birdbaths on a regular basis.
Low	The mosquito species that carries WNV has been detected. Infection with WNV is unlikely.	To Prevent: <ul style="list-style-type: none"> Wear mosquito repellent during high mosquito hours (dusk to dawn) Wear long sleeves and long pants during high mosquito hours (dusk to dawn) Use mosquito netting on baby carriages and playpens
Moderate	High numbers of mosquitoes that can spread WNV have been detected. Infection with WNV is likely or has already occurred.	To Prevent: add to previous level <ul style="list-style-type: none"> Wear mosquito repellent continuously Wear long sleeves and long pants when weather permits Dump standing water twice weekly
High	1) Mosquitoes have tested positive for WNV OR 2) this week has been identified as a 'high risk' WNV infection week based on historical human cases. Many people may get infected with WNV in your area.	To Prevent: add to previous level <ul style="list-style-type: none"> People over 50 or those who are immune compromised may consider adjusting outdoor activity to avoid peak mosquito hours (from dusk to dawn).
Always know your risk – check risk level regularly at http://www.kdheks.gov/epi/arboviral_disease.htm		

Mosquito Surveillance Results, Week Ending August 4, 2017 (Week 11)

Table 1: Total Mosquitoes and Culex Spp. Mosquitoes Captured by Date and Region in Kansas, 2017[†]

Week Ending, 2017	WEST & CENTRAL						EAST				
	Sedgwick			Reno			Shawnee			Johnson*	
	Total Mosquitoes	Culex spp.	Two-Week Mean, Culex spp.	Total Mosquitoes	Culex spp.	Two-Week Mean, Culex spp.	Total Mosquitoes	Culex spp.	Two-Week Mean, Culex spp.	Total Mosquitoes	Culex spp.
5/17	48	24	—	—	—	—	—	—	—	830	10
5/24	81	24	24	161	89	—	18	9	—	—	—
5/31	125	45	34.5	1206	966	527.5	21	4	6.5	249	2
6/7	105	4	24.5	157	98	532	176	10	7	—	—
6/14	209	27	15.5	137	55	76.5	527	36	23	123	35
6/21	203	37	32	146	48	51.5	330	64	50	—	—
6/28	192	10	23.5	17	8	28	527	273	168.5	43	9
7/5	329	35	22.5	28	4	6	56	15	144	—	—
7/12	125	11	23	57	7	5.5	354	148	81.5	138	11
7/19	57	26	18.5	50	8	7.5	335	192	170	—	—
7/26	65	24	25	23	8	8	29	10	101	38	15
8/2	112	53	38.5	33	12	10	1200	1172	591	—	—

[†] Evaluation of surveillance data from 2013 & 2014 revealed a strong correlation between the two-week mean Culex prevalence and human cases that occurred in Sedgwick County, and the entire state of Kansas, two and three weeks later. When the Culex spp. two-week mean is over 40, human cases may be expected in the subsequent weeks.

*Two-week Culex spp. mean is not calculated for Johnson County due to biweekly trapping.

During the week ending 7/26, only 3 out of 6 traps were set in Shawnee County.

Table 2: West Nile Virus Mosquito Test Results by Date and County in Kansas, 2017.

Week Ending, 2017	WEST & CENTRAL				EAST			
	Sedgwick		Reno		Shawnee		Johnson*	
	Vials Tested	# Positive (%)	Vials Tested	# Positive (%)	Vials Tested	# Positive (%)	Vials Tested	# Positive (%)
5/17	4	0 (0)	—	—	—	—	3	2 (66)
5/24	8	0 (0)	5	0 (0)	4	1 (25)	—	—
5/31	7	0 (0)	8	1 (16.6)	2	1 (50)	1	0 (0)
6/7	4	0 (0)	5	0 (0)	4	0 (0)	—	—
6/14	7	0 (0)	5	0 (0)	3	0 (0)	3	0 (0)
6/21	8	2 (25)	6	0 (0)	5	2 (40)	—	—
6/28	6	0 (0)	1	0 (0)	5	4 (80)	1	0 (0)
7/5	1	0 (0)	1	0 (0)	1	0 (0)	—	—
7/12	1	0 (0)	1	0 (0)	3	0 (0)	1	0 (0)
7/19	1	0 (0)	1	0 (0)	3	0 (0)	—	—

West Nile Virus Human Cases, 2017

Table 3: West Nile Virus Surveillance in Humans, 2017 (as of week ending August 4, 2017)

County	Number of Cases
Barber	1
Barton	2
Osborne	1

**Data from individual traps are used to guide mosquito control efforts. Data from a trap may be excluded when assigning a risk level to a region if only one location within a county has excessively high numbers. We will work with the county and city to provide recommendations on mosquito control efforts using the mosquito surveillance data.*

For more information on arboviral disease surveillance in Kansas call the Kansas Department of Health and Environment's Infectious Disease Epidemiology and Response section at 1-877-427-7317 or e-mail at kdhe.EpiHotline@ks.gov.